

Boiler Energy Management System

FW 200



BOSCH

Operating Instructions for the User

Dear Customer,

The controls are the “brain” of your heating system. We have set it at the factory so that the settings will be appropriate for most cases. This way, daily operation is easy. The large, clear display of the controls “speaks plain text” and shows all relevant information.

Program space and water heating

With the controls you can set how warm you want it at what times. We have already set various scenarios from which you can choose.

An example: do you work and therefore are you not at home during the day? Then perhaps you only need full heating comfort in the mornings and the evenings. During the day you save energy in “economy mode” and at night, the heat is reduced further still. Perhaps you have entirely different needs because you are at home all day? Whatever your lifestyle and your habits may be -- the heating system will adapt itself to your needs.

Even for unforeseen cases: 100% comfort

Did you get home earlier than planned and would you like to have the house warm right away even though your boiler is in “economy mode”? In this case the controls switch to “heating mode” right away with the press of a key. In just a short time, you will be as comfortable as usual. Another example: you would like to shower even though your boiler is currently running in “economy mode”? Here too, the press of a key can help you. The water is heated and in just a short time you can enjoy your hot shower. Depending on the type of hot water heating, the system returns to “economy mode” automatically after half an hour or after an hour.

Consideration of the outdoor temperature

This is an outdoor reset control. It increases or decreases the output of your heating system depending on the outdoor temperature.

The controls can be installed on the boiler or mounted directly on the wall in the living area. If it is in the room, it can also be used to record the room temperature for optimizing comfort.

Solar optimization

With our patented process “SolarInside ControlUnit”, you save up to 15% additional energy during hot water heating if you have a solar thermal system installed. You can find information about the solar yield on the controls’ Info menu.

These operating instructions

These operating instructions contain the most important information on daily operation of the controls.

There is a listing of other interesting functions of the controls in section 6.

If you would like to learn more, there is a detailed description of all available functions in the detailed installation and operating instructions. Specialized terms are explained for you at the end of these operating instructions.

We hope you will enjoy your new Bosch product.
Your Bosch team

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1 Explanation of symbols and safety information

1.1 Notes structure

Warnings



Warnings are indicated in the text by a warning triangle and a gray background.



In case of danger due to electric current, the exclamation point on the warning triangle is replaced with a lightning symbol.

Signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimizing damage are not taken.

- **NOTE** indicates that minor damage to property may occur.
- **CAUTION** indicates possible minor to medium personal injury.
- **WARNING** indicates possible severe personal injury.
- **DANGER** indicates that severe personal injury may occur.

Important information



Important information that presents no risk to people or property is indicated with this symbol. It is separated by horizontal lines above and below the text.

Additional symbols

Symbol	Meaning
▶	Sequence of steps
→	Cross-reference to other points in this document or to other documents
•	Listing/list entry
–	Listing/list entry (2nd level)

Tab. 1

1.2 Safety instructions

- ▶ To ensure proper function, follow these instructions.
- ▶ Danger of scalding due to thermal disinfection:
If the thermal disinfection function is enabled, a thermostatic mixing valve must be installed.
- ▶ When there is a risk of frost, leave the boiler switched on and follow the frost protection information.

Risk of damage due to operator error

Operator errors can cause injury and damage to property.

- ▶ Ensure that children never operate this appliance unsupervised or play with it.
- ▶ Ensure that only individuals who can operate the controls correctly have access to them.

2 Details about the controls

2.1 Certifications



This product has been tested and is certified for both the US and Canadian markets, and meets all applicable US and Canadian standards.

2.2 Disposal

- ▶ Dispose of packaging in an environmentally responsible manner.

2.3 Cleaning the housing

- ▶ If necessary, clean the controls housing with a damp cloth; do not use any aggressive or acidic cleaning agents for this.

3 Display reading

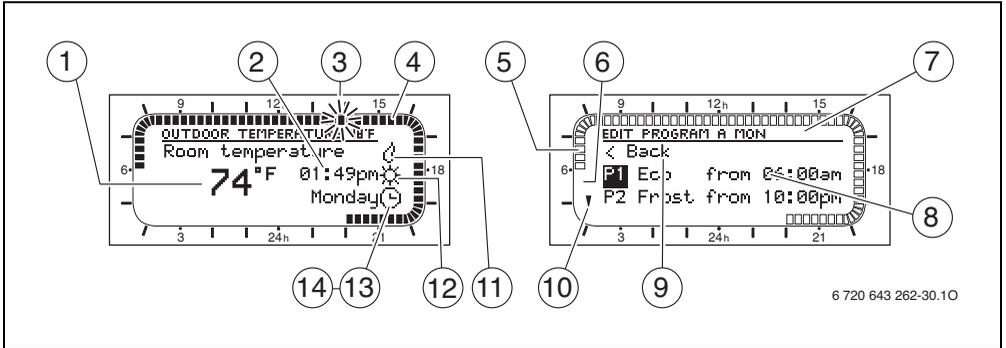
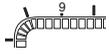
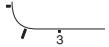
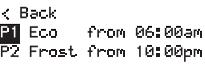


Fig. 1 Symbols on the display (sample figures)

Item	Symbol	Designation	Explanation
1		Temperature display	<ul style="list-style-type: none"> The current room temperature is displayed if the controls are mounted on the wall and set accordingly. The current supply temperature is displayed if the controls are installed on the boiler or mounted on the wall and set accordingly.
2		Time and day of the week	Current time and day of the week.
3		Flashing segment	Current time (1 segment = 15 minutes, here 1:45pm (13:45) to 2:00pm (14:00)) or switch time in the heating program.
4		Full segments	Period of the operating mode Comfort (high room temperature) or hot water heating (high hot water temperature), 1 segment = 15 minutes.
5		Empty segments	Period of the operating mode Economy (medium room temperature) or hot water heating (medium hot water temperature), 1 segment = 15 minutes.
6		No segment	Period of the operating mode Frost (low room temperature) or hot water heating (reduced hot water temperature).
7		Header	Name of the superior menu level, of the program, etc.
8		3 text lines	Menu options, info texts, set values, etc.
9		Back	Jump back to the higher menu level.
10		Additional texts	If the text displayed has more than 3 lines, this is indicated by the directional arrow. The additional text can be viewed by turning the dial.
11		Burner operation	The boiler is heating.
12		Operating mode	Current operating mode Comfort / Economy / Frost.
13		Automatic mode	Automatic change of the operating modes to the set switch points according to the heating program.
14		Vacation	The vacation program is active.

Tab. 2 Symbols on the display

4 Operation with closed flap

4.1 Controls

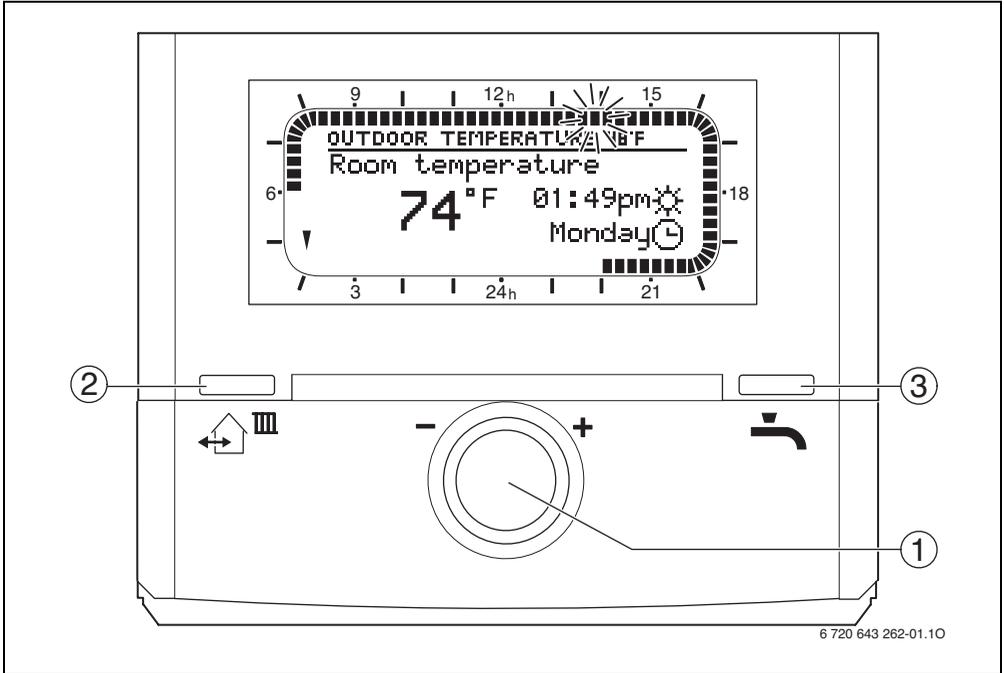
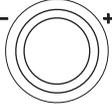


Fig. 2 Operating elements with closed flap

Item	Element	Designation	Explanation
1		Dial	<ul style="list-style-type: none"> Turning dial: change the room temperature temporarily. Pressing dial: switches heating zone or confirms setting/value.
2		“Come/go” button	Start the next operating mode Comfort / Economy / Frost of the heating program immediately. The heating program is thus changed temporarily.
3		“DHW single charge” button	Start the hot water heating immediately. The DHW program is thus changed temporarily.

Tab. 3 Operating elements with closed flap

4.2 If it is too cold or too warm for you



The desired room temperature is an orientation value that the outdoor reset control tries to achieve. Deviations from the actually-achieved room temperature can occur.

You can read the current temperature from the display. Depending on the mounting location (on the wall or in the boiler) and the setting, the display shows either the room temperature or the supply temperature.

Changing the heating circuit

You can choose between two heating circuits. Ask the installer of your heating system how the heating circuits are assigned, heating circuit 1 is the heating with radiators and heating circuit 2 is the radiant floor heating.

- ▶ Press dial  to change to the second heating circuit.

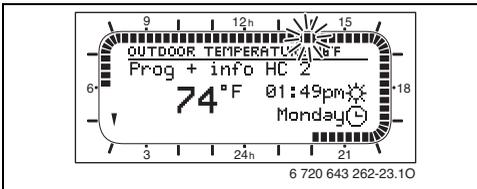


Fig. 3 Sample display for heating circuit 2 (if the controls are mounted on the wall)

- ▶ Press dial again to change to the first heating circuit.

Displaying the temperature setting

- ▶ If desired, press dial  to change the heating circuit.
- ▶ Turn dial one click.

Changing the temperature setting temporarily

With a closed flap, you can temporarily change the room temperature with the dial .



You can also change the room temperature permanently (→ section 5.2).

If the controls display the room temperature:

- ▶ If desired, press dial to change the heating circuit.
- ▶ Rotate dial until the desired day room temperature is displayed. The temperature display flashes.
- ▶ Press the dial. The change applies until the next switch point of your heating program has been reached. After this, the settings of the heating program apply again.

If the controls display the supply temperature:

- ▶ If desired, press dial to change the heating circuit.
- ▶ Turn the dial to set the heating **WARMER** or **COOLER**. The position arrows on the display bars flash.
- ▶ Press the dial. The change applies until the next switch point of your heating program has been reached. After this, the settings of the heating program apply again.

4.3 If you would like to change the heating program temporarily

If you go to bed earlier, leave home longer or come back earlier, you can use the  button to set the next operating mode **Comfort** / **Economy** / **Frost** of the heating program right away. The heating program is thus changed temporarily until the next switch point is reached.



The operating mode switch under the flap must be in the **auto** position (→ Fig. 4 [2], page 12).

Start “Come/Go”

- ▶ If desired, press dial to change the heating circuit.
- ▶ Briefly press  button.
The next operating mode **Comfort** / **Economy** / **Frost** of the heating program is started right away. The change is shown in the display.

Ending “Come/Go” early

- ▶ Briefly press  button.
“Come/Go” is ended and the heating program resumes.

4.4 If you would like to change the DHW program temporarily

If you would like to shower even though your boiler is currently running in “Eco” mode, you can use the  button to start hot water heating right away. The DHW program is thus changed temporarily.

Starting “DHW single charge”

- ▶ Briefly press  button.
The change is shown in the display.
 - For hot water heating with a domestic hot water tank, heating up to the set hot water temperature occurs for 60 minutes.
 - For hot water heating with a combi boiler, the comfort operation is active for 30 minutes.



See the operating instructions for the boiler for additional information about comfort operation.

Ending “DHW single charge” early

- ▶ Briefly press  button.
“DHW single charge” is ended and the DHW program resumes.

5 Operation with open flap

5.1 Controls

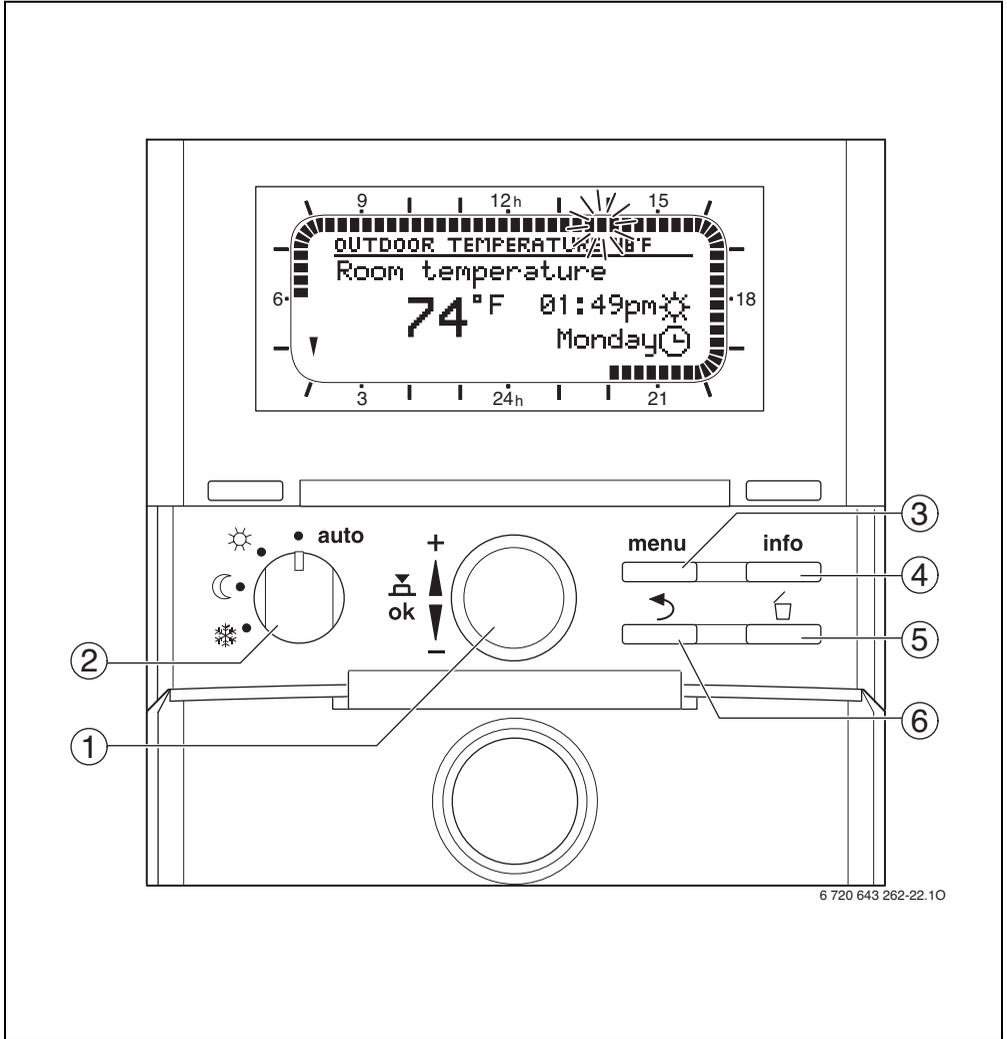


Fig. 4 Controls with open flap

Item	Element	Designation	Explanation
1		Dial	<ul style="list-style-type: none"> Turn the dial: <ul style="list-style-type: none"> Temporarily change room temperature. Move in the menu and change the value. Press the dial. <ul style="list-style-type: none"> Open the menu. Confirm the setting.
2		Operating mode selector	<ul style="list-style-type: none"> auto: Heat according to heating program.  /  / : Permanent heat according to operating mode Comfort / Economy / Frost (the heating program is switched off).
3	menu	Menu button	Open and close main menu.
4	info	Info button	Open and close info menu. Display of current information about the heating system, e.g. heating, hot water, solar.
5		"Delete" button	Delete/reset value on the menu.
6		"Back" button	Jump back to the higher menu level.

Tab. 4 Controls with open flap

5.2 Changing room temperatures permanently for the heating program

The controls have 3 temperature levels for controlling the room temperature:

- ☀ **Comfort:** 70 °F (21 °C) (factory settings) adjustment range 32 °F ... 86 °F (0.0 °C ... 30.0 °C), however higher than **Economy**
- ☾ **Economy:** 60 °F (15 °C) (factory settings) adjustment range 32 °F ... 86 °F (0.0 °C ... 30.0 °C), however higher than **Frost** and lower than **Comfort**
- ❄ **Frost:** 42 °F (5 °C) (factory settings) adjustment range 32 °F ... 86 °F (0.0 °C ... 30.0 °C), however lower than **Economy**

If you wish to change the room temperature for a longer time, proceed as follows:

Display set temperature level

The display of the set temperature level by turning the operating mode selector only works if the room temperature is displayed.

- ▶ Open flap.
- ▶ If desired, press dial to change the heating circuit.
- ▶ Turn operating mode selector to the positions ☀ / ☾ / ❄ one after another. The set room temperatures are displayed.



Turn the operating mode selector further back to the initial position **auto**. Only then is an automatic change of the temperature level in a heating program possible.

Changing the set temperature level

- ▶ Press the menu button. The **MAIN MENU** is displayed, the **Vacation** menu option is marked.

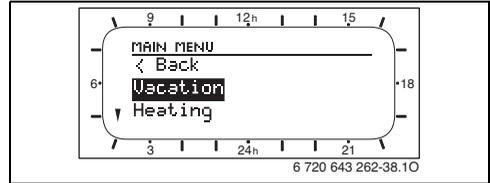


Fig. 5 **Vacation** menu option

- ▶ Turn the dial to mark the **Heating** menu option.

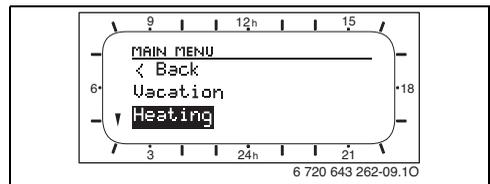


Fig. 6 **Heating** menu option

- ▶ Press the dial. The **HEATING** menu is displayed, the **Program** menu option is marked.

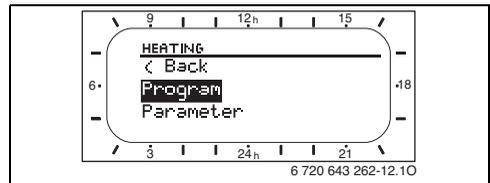


Fig. 7 **Program** menu option

- ▶ Turn the dial to mark the **Parameter** menu option.

- ▶ Press the dial.
The **HEATING PARAMETERS** menu is displayed, the **Heating circuit 1** menu option is marked.

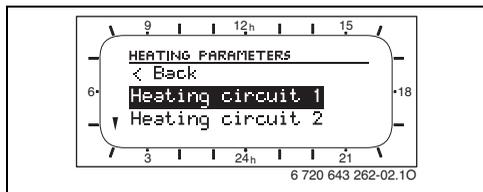


Fig. 8 **Heating circuit 1** menu option

- ▶ Turn the dial to mark the **Heating circuit 2** menu option.
- or-**
- ▶ Press the dial.
The **HEATING PARAMETERS CIRC. 1** menu is displayed, the **Heating levels** is marked.

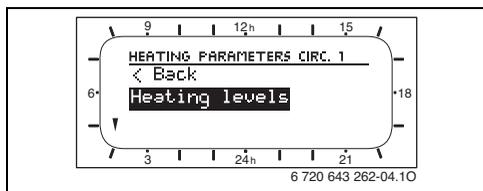


Fig. 9 **Heating levels** menu option

- ▶ Press the dial.
The **CIRCUIT 1 HEATING LEVELS** menu is displayed, the **Comfort** menu option is marked.

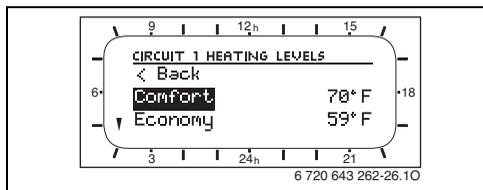


Fig. 10 **Comfort** menu option

Example: Change temperature level **Economy**.

- ▶ Turn the dial to mark the **Economy** menu option.
- ▶ Press the dial.
The input field for the desired room temperature flashes.

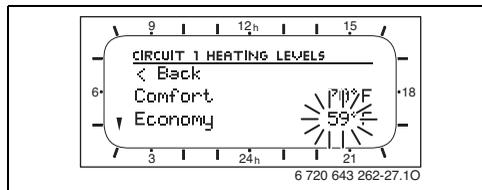


Fig. 11 **Desired room temperature input field**

- ▶ Turn dial to set the desired room temperature.
- ▶ Press the dial to confirm the setting.
The **Economy** menu option is marked again.
- ▶ Turn the dial to change the settings for **Comfort** and **Frost** in the same manner.

-or-

- ▶ Press the menu button to leave the menu.
The controls work with the changed settings.

5.3 Constant room temperature



If possible, leave the operating mode selector in the **auto** position. Only this way can you benefit from the full comfort of the heating program.



You can change the set temperature with the dial (→ section 4.2). If the operating mode selector is turned, the changed temperature is discarded.

If, however, you would like to specify a constant room temperature for a longer time, then you can set constant operation with the operating mode selector.

The following constant room temperature settings are possible:

-  **Comfort** in permanent operation
The controls constantly regulate the set (high) room temperature for the **Comfort** operating mode. (Factory settings): 70 °F (21 °C).
-  **Economy** in permanent operation
The controls constantly regulate the set (high) room temperature for the **Economy** operating mode. (Factory settings): 60 °F (15 °C).
-  **Frost** in permanent operation
The controls constantly regulates the set (low) room temperature for the **Frost** operating mode. (Factory settings): 42 °F (5 °C). If the boiler is switched on, there is frost protection for the system. Please observe the other notes in the boiler operating instructions.



NOTICE: Make sure that the lower room temperature is tolerable for plants and house pets.

- ▶ Open flap.
- ▶ If desired, press dial to change the heating circuit.
- ▶ Turn operating mode selector to the desired position.

5.4 Selecting and adapting a heating program

At the factory, various heating programs are preprogrammed that are appropriate for most cases. The program A (e.g. for families) is already activated for the heating circuit 1 and the

program D (e.g. for families) is already activated for the heating circuit 2.

In this section you will learn how you can activate another heating program and how you can individualize the activated heating program.

Program	Factory settings for the program points P1 to P6										
	Day	Switch point P1		Switch point P2		Switch point P3		Switch point P4		Switch point P5 and P6	
Program A and Program D (e.g. for families); factory default: heating circuit 1 and heating circuit 2	Monday – Thursday	☀	06:00am	❄	10:00pm	–	–	–	–	–	–
	Friday	☀	06:00am	❄	11:30pm	–	–	–	–	–	–
	Saturday	☀	07:00am	❄	11:30pm	–	–	–	–	–	–
	Sunday	☀	08:00am	❄	10:00pm	–	–	–	–	–	–
Program B and Program E (e.g. for people who work during the day)	Monday – Thursday	☀	06:00am	☾	08:00am	☀	05:00pm	❄	10:00pm	–	–
	Friday	☀	06:00am	☾	08:00am	☀	05:00pm	❄	11:30pm	–	–
	Saturday	☀	07:00am	❄	11:30pm	–	–	–	–	–	–
	Sunday	☀	08:00am	❄	10:00pm	–	–	–	–	–	–
Program C and Program F (e.g. for seniors)	All days	☀	07:00am	☾	11:00pm	–	–	–	–	–	–

Tab. 5 Factory settings for the heating programs A to F

- ☀ **Comfort:** 70 °F (21 C) (factory settings).
 ☾ **Economy:** 60 °F (15 C) (factory settings).
 ❄ **Frost:** 42 °F (5 °C) (factory settings)



The settings for a heating program will be explained using the example of **Program A**.

5.4.1 Activating a heating program

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Heating** menu option.
- ▶ Press the dial.
The **HEATING** menu is displayed, the **Program** menu option is marked.
- ▶ Press the dial.
The **HEATING PROGRAM** menu is displayed, the **Activate** menu option is marked.

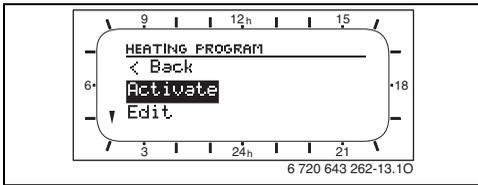


Fig. 12 **Activate** menu option

- ▶ Press the dial.
The **ACTIVATE HEATING PROGRAM** menu is displayed, the **Heating circuit 1** menu option is marked.
- ▶ Press the dial.
The input field for the heating program flashes.
- ▶ Turn the dial to select a heating program, e.g. **A:Program A** or **B:Program B**.
- ▶ Press the dial to confirm the selection.
The **Heating circuit 1** menu option is marked again.
- ▶ Press the menu button to leave the menu.
The controls work with the selected heating program.

5.4.2 Adapting a heating program individually

If the settings (temperature level or switch points) for a heating program do not meet your needs, you can change this heating program.

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Heating** menu option.
- ▶ Press the dial.
The **HEATING** menu is displayed, the **Program** menu option is marked.
- ▶ Press the dial.
The **HEATING PROGRAM** menu is displayed, the **Activate** menu option is marked.
- ▶ Turn the dial to mark the **Edit** menu option.

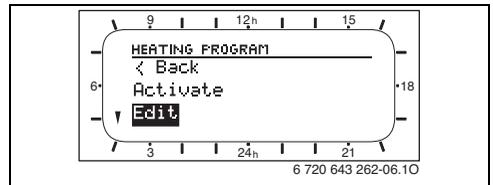


Fig. 13 **Edit** menu option

- ▶ Press the dial.
The **EDIT HEATING PROGRAM** menu is displayed, the **A:Program A** menu option is marked.
 - ▶ Turn the dial to select another heating program.
- or-**
- ▶ Press the dial.
The **EDIT PROGRAM A** menu is displayed, the **Replace with preset program** menu option is marked.

- ▶ Turn the dial to mark the desired group of days, e.g. **Monday**.

The following groups of days are available:

- **All days** (all days of the week)
 - **Mon - Fri** (all week days)
 - **Sat + Sun** (Saturday and Sunday)
 - **Monday, Tuesday...** (each weekday individually)
- ▶ Press the dial.
- The **EDIT PROGRAM A MON** menu is displayed, the **P1** menu option is marked.

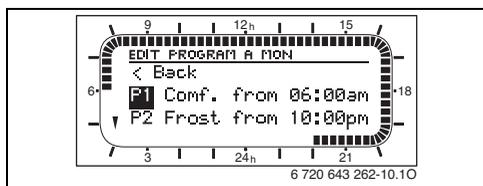


Fig. 14 Edit program A on Monday (P1)

- ▶ Turn the dial to select another program, e.g. **P3**.

-or-

- ▶ Press the dial.
- The segment display and the input field for the switch point of **P1** flashes.
- ▶ Turn the dial to set the desired switch point, e.g. **6:30am** (06:30).



Fig. 15 Setting the switch point

- ▶ Press the dial to confirm the setting.
- The segment display and the input field for the operating mode of **P1** flash.

- ▶ Turn the dial to select another operating mode, e.g. **Economy**.

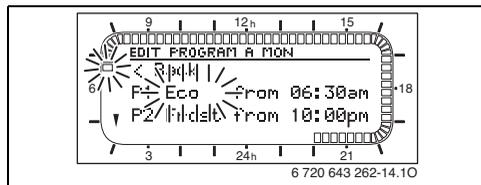


Fig. 16 Setting the operating mode

- ▶ Press the dial to confirm the setting.
- The program **P1** is marked.
- ▶ Turn the dial to select another program, e.g. **P3**.
- or-
- ▶ Press the menu button to leave the menu.
- The controls work with the changed settings.



If you have changed a heating program that was not already activated (factory setting is **A:Program A for Heating circuit 1** or **D: Program D for Heating circuit 2**), you must select the corresponding heating program in the **HEATING** menu with the **Activate** menu option and activate it (→ section 5.4.1).

5.4.3 Resetting heating program to factory settings

If you need a heating program with its original settings, you can reset the heating program to its factory settings.

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Heating** menu option.
- ▶ Press the dial.
The **HEATING** menu is displayed, the **Program** menu option is marked.
- ▶ Press the dial.
The **HEATING PROGRAM** menu is displayed, the **Activate** menu option is marked.
- ▶ Turn the dial to mark the **Edit** menu option.
- ▶ Press the dial.
The **EDIT HEATING PROGRAM** menu is displayed, the **A:Program A** menu option is marked.
- ▶ Turn the dial to select another heating program.

-or-

- ▶ Press the dial.
The **EDIT PROGRAM A** menu is displayed, the **Replace with preset program** menu option is marked.

- ▶ Turn the dial to mark the **Reset factory settings** menu option.

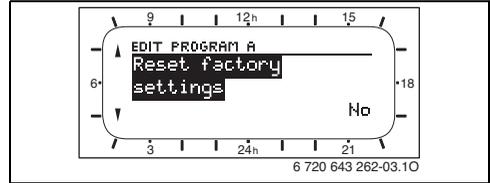


Fig. 17 **Reset factory settings** menu option

- ▶ Press the dial.
The input field **No** flashes.
- ▶ Turn the dial to set **Yes**.
- ▶ Press the dial to confirm the setting.
The message **The heating program A has been reset to factory settings** is displayed.
- ▶ Press the dial.
The **Reset factory settings** menu option is marked again.
- ▶ Press the menu button to leave the menu.
The controls work with the heating program's factory settings.

5.5 Selecting and adapting DHW program

At the factory, a DHW program is set that suits most cases. The DHW program consists of:

- a program for hot water heating
- a program for a recirculation pump

Both programs are already matched to one another and activated.

This section shows you how you can either deactivate the programs and connect them with the active heating programs or adapt them individually.

Factory settings of the program for DHW heating

Day	Program points P1		P2		P3 to P6	
	°F / On/Off / On ²	Switch point	°F / On/Off / Off ²	Switch point	°F / On/Off	Switch point
Monday – Friday	140 °F (60 °C) ¹⁾ / On ²⁾	05:00am	60 °F (15 °C) ¹⁾ / Off ²⁾	11:00pm	–	–
Saturday	140 °F (60 °C) ¹⁾ / On ²⁾	06:00am	60 °F (15 °C) ¹⁾ / Off ²⁾	11:00pm	–	–
Sunday	140 °F (60 °C) ¹⁾ / On ²⁾	07:00am	60 °F (15 °C) ¹⁾ / Off ²⁾	11:00pm	–	–

Tab. 6 Factory settings of the program for DHW heating

1) DHW heating with DHW tank

2) DHW heating with combi boiler

Factory settings for the program for recirculation pump

Day	Program points P1		P2		P3 to P6	
	On/Off	Switch point	On/Off	Switch point	On/Off	Switch point
Monday – Friday	ON	06:00am	OFF	11:00pm	–	–
Saturday	ON	07:00am	OFF	11:00pm	–	–
Sunday	ON	08:00am	OFF	11:00pm	–	–

Tab. 7 Factory settings of the program for recirculation pump (the program for recirculation pump is only available for hot water heating with DHW tank)

5.5.1 Connecting DHW program to the active heating program

If you have already adapted the heating program to your individual needs, it may make sense to activate DHW heating simultaneously.

The hot water heating program will be deactivated and instead linked to the active heating program.

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Domestic hot water** menu option.



Fig. 18 **Domestic hot water** menu option

- ▶ Press the dial.
The **DOMESTIC HOT WATER** menu is displayed, the **DHW and DHW recirculation pump** menu option is marked.
- ▶ Press the dial.
The **Separate programs** input field flashes.
- ▶ Turn the dial to set **As heating program**.
- ▶ Press the dial to confirm the setting.
The **DHW and DHW recirculation pump** menu option is marked again.
- ▶ Press the menu button to leave the menu.
The DHW program will work according to the active heating programs.



For more information about how the hot water heating works in connection with the heating programs, please see the detailed installation and operating instructions.

5.5.2 Activating a DHW program

If you would like to set a DHW heating program independently of the heating programs, re-activate the DHW program.

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Domestic hot water** menu option.
- ▶ Press the dial.
The **DOMESTIC HOT WATER** menu is displayed, the **DHW and DHW recirculation pump** menu option is marked.
- ▶ Press the dial.
The input field **As heating program** flashes.
- ▶ Turn the dial to set **Separate programs**.
- ▶ Press the dial to confirm the setting.
The **DHW and DHW recirculation pump** menu option is marked again.
- ▶ Press the menu button to leave the menu.
The DHW program works independently of the heating programs.

5.5.3 Adapting the DHW program individually

If the settings (e.g. switch points) for the DHW program do not meet your needs, you can change the DHW program. Make sure that the programs for DHW heating and the recirculation pump are matching to avoid circulating cold water.

Adapting a program for hot water heating

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **Domestic hot water** menu option. Press the dial.
The **DOMESTIC HOT WATER** menu is displayed, the **DHW and DHW recirculation pump** menu option is marked.



If **As heating program** is displayed here, the setting must be changed to **Separate programs** (→ section 5.5.2). Only then are the additional steps available!

- ▶ Turn the dial to mark the **DHW program** menu option.
- ▶ Press the dial.
The **DHW PROGRAM** menu is displayed, the **Edit** menu option is marked.
- ▶ Press the dial.
The **EDIT DHW PROGRAM** menu is displayed.



The additional steps correspond largely to the setting of the program points **P1 ... P6** of a heating program (→ section 5.4.2). Depending on the type of DHW heating, in addition to the switch points, either the DHW temperatures can be set or the DHW heating be switched on/off.

Adapting a program for a recirculation pump



The menu is only displayed if a recirculation pump is available.

- ▶ Open flap.
 - ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
 - ▶ Turn the dial to mark the **Domestic hot water** menu option. Press the dial.
The **DOMESTIC HOT WATER** menu is displayed, the **DHW and DHW recirculation pump** menu option is marked.
-



If **As heating program** is displayed here, the setting must be changed to **Separate programs** (→ section 5.5.2). Only then are the additional steps available!

- ▶ Turn the dial to mark the **DHW recirc pump prog** menu option.
 - ▶ Press the dial.
The **DHW RECIRC PROGRAM** menu is displayed, the **Edit** menu option is marked.
 - ▶ Press the dial.
The **EDIT DHW RECIRC PROGRAM** menu is displayed.
-



The additional steps correspond largely to the setting of the program points **P1 ... P6** of a heating program (→ section 5.4.2). In addition to the switch points, the recirculation pump can be switched on/off.

5.5.4 Resetting DHW program to factory settings

Resetting the DHW program to the factory default will delete all custom settings.

- ▶ Carry out the steps up to the **Edit** menu option (→ section 5.5.3).
-



The additional steps for resetting the hot water heating program correspond largely to the resetting of a heating program (→ section 5.4.3).

5.6 Setting up a vacation program

If you leave the house for several days, you can set in the vacation program that there will be neither heat nor hot water produced during this time.

The otherwise applicable heating and DHW programs are not affected by this. The frost protection is also guaranteed during the vacation program.

The vacation program works with the following factory settings:

- **Heating circuit 1** and **Heating circuit 2:**
Frost ❄️
- **Domestic hot water:** 60 °F (15 °C)¹⁾ / Off²⁾
- **DHW recirculation pump:** Off
- **Thermal disinfection:** Off.



The factory settings guarantee energy-saving and safe operation during your vacation.

If you would nevertheless like to change the factory settings, you will find the possible settings in the detailed installation and operating instructions.

5.6.1 Setting the beginning of vacation



If you have set the vacation program to start on today's date, it will start immediately.

Otherwise the vacation program will start at 12:00am (00:00) on the set day.

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.

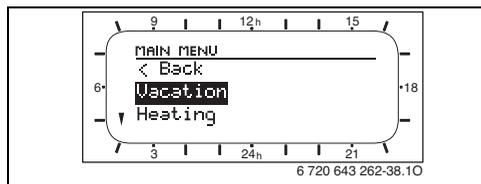


Fig. 19 **Vacation** menu option

- ▶ Press the dial.
The vacation menu is displayed, the **Start** menu option is marked.
- ▶ Press the dial.
The input field for the year flashes.
- ▶ Turn the dial to set the year.
- ▶ Press the dial to confirm the setting.
The input field for the month flashes.
- ▶ Set the month and day in the same manner as the year.
After confirmation of the day, the **Start** menu option is marked again.

1) Hot water heating with hot water tank

2) Hot water heating with combi boiler

5.6.2 Setting the end of vacation



The vacation program ends at 11:59pm (23:59) on the set day.

- ▶ Turn the dial to mark the **End** menu option.
- ▶ Press the dial.
The input field for the year flashes.
- ▶ Turn the dial to set the year.
- ▶ Press the dial to confirm the setting.
The input field for the month flashes.
- ▶ Set the month and day in the same manner as the year.
After confirmation of the day, the **End** menu option is marked again.

5.6.3 Starting vacation mode

- ▶ Press the menu button to leave the menu.
The vacation program will start on the set date.
- During the run time of the vacation program, the display shows  and the set vacation end, e.g. **VACATION UNTIL 09/30/2010** (30.09.2010).
- After the end of the vacation program, the controls work again with the set heating and hot water programs.

5.6.4 Canceling the vacation program early

- ▶ Open flap.
- ▶ Press the menu button.
The main menu is displayed, the **Vacation** menu option is marked.
- ▶ Press the dial.
The vacation menu is displayed, the **Start** menu option is marked.
- ▶ Press the dial.
The input field for the year flashes.
- ▶ Press the  button to delete the date for the vacation start.
The display shows --/--/---- (---.---.----).
- ▶ Press the dial to confirm the setting.
The date for the vacation end is also deleted.
- ▶ Press the menu button to leave the menu.
The vacation program is ended.

5.7 Changing the time and date



If a power failure lasts a while, you will need to reset the date and time.

This section shows you how to set the time and date.

5.7.1 Changing the time

- ▶ Open flap.
- ▶ Press the menu button.
The **MAIN MENU** is displayed, the **Vacation** menu option is marked.
- ▶ Turn the dial to mark the **General settings** menu option.
- ▶ Press the dial.
The **GENERAL SETTINGS** menu is displayed, the **Time and date** menu option is marked.

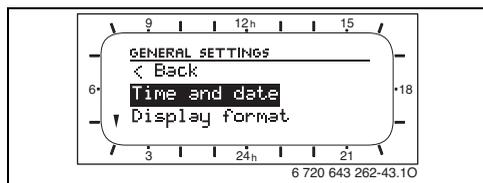


Fig. 20 **Time and date** menu option

- ▶ Press the dial.
The **TIME AND DATE** menu is displayed, the **Time** menu option is marked.
- ▶ Press the dial.
The input field for the hour flashes.
- ▶ Turn the dial to set the hour.
- ▶ Press the dial to confirm the setting.
The input field for the minutes flashes.
- ▶ Set the minutes the same way you set the hour.
After confirmation of the minutes, the **Time** menu option is marked again.

5.7.2 Changing the date

- ▶ Turn the dial to mark the **Date** menu option.
- ▶ Press the dial.
The input field for the year flashes.
- ▶ Turn the dial to set the year.
- ▶ Press the dial to confirm the setting.
The input field for the month flashes.
- ▶ Set the month and day in the same manner as the year.
The current weekday is determined automatically.
- ▶ After confirmation of the day, the **Date** menu option is marked again.
- ▶ Press the menu button to leave the menu.
The controls work with the changed settings.

6 Information about additional functions

These operating instructions contain the most important information on daily operation of the controls.

If you would like more details, you will find a detailed description of all available features in the detailed installation and operating instructions.

For example, there are details about the following topics:

- Display of current information about your heating system.
- Temporarily change the next switch point of the heating program.
- The use of additional settings for the heating and hot water program, e.g. changing program names, setting the heat-up speed, adapting parameters for DHW heating, etc.
- Use of thermal disinfection with hot water temperatures above 140 °F (60 °C). If you use this function, heed the safety instructions about the danger of scalding.
- Adapting information shown on the display, e.g. solar yield in the header of the display, contrast of the display, time format, date format, temperature unit, language, etc.
- Activate the key lock against unauthorized operation. This way, you prevent unintentional temperature changes and unauthorized access to your individual settings.
- Optimize the settings for your solar heating system.

7 Environmental protection

Environmental protection is one of the fundamental company policies of the Bosch Group.

We regard quality of performance, economy and environmental protection as equal objectives.

Environmental protection laws and regulations are strictly adhered to.

To protect the environment, we use the best possible technology and materials taking into account economic points of view.

Packaging

For the packaging, we participate in the country-specific recycling systems, which guarantee optimal recycling.

All packaging materials used are environmentally-friendly and recyclable.

Old appliances

Old appliances contain resources that must be submitted for recycling.

The components are easy to separate and the plastics are marked. This allows the various components to be sorted for appropriate recycling or disposal.

8 Troubleshooting

8.1 Eliminating “sensed” faults

A “sensed” fault can have various causes, which can usually be eliminated with simple steps.

If it is too cold or hot for you, the following table will help you eliminate these “sensed” faults.

Problem	Cause	Remedy
Required room temperature not achieved.	Thermostats on the radiators are set too low.	Set thermostat(s) higher.
	Heating levels set too low.	Set the desired room temperature using the Heating levels menu option for “Comfort”.
	Supply temperature control ¹⁾ on the boiler set too low	Set the supply temperature control ¹⁾ higher.
		If necessary, reduce the solar optimization ²⁾ .
	Air in the heating system.	Bleed radiators and vent the heating system.
Heat-up takes too long.	Heat-up speed set too low.	Heat-up speed e.g. too “Fast”.
Required room temperature greatly exceeded.	Radiators become too hot.	Set thermostat(s) lower.
		Set the desired room temperature lower using the Heating levels menu option for “Comfort”.
	Installation site of the controls unfavorable, e.g. external wall, close to window, in a draft, ...	Call installer or customer service.
Excessive room temperature fluctuations.	Temporary influence of external heat on the room, e.g. through solar radiation, lighting, TV, fireplace etc.	Call installer or customer service.

Tab. 8 Troubleshooting, Part 1

1) There is additional information in the operating instructions for the boiler

2) For additional information, see the detailed installation and operating instructions for the controls

Problem	Cause	Remedy
Temperature rises instead of falling.	Clock time incorrectly set.	Set the time.
Room temperature too high during "Economy" and/or "Frost" mode.	The building retains a lot of heat.	Set an earlier switch point for "Economy" and/or "Frost".
Incorrect or no control.	e.g. connection between controls and boiler defective.	Call installer or customer service.
Controls can only be set to automatic mode.	Mode selector defective.	Call installer or customer service.
Domestic hot water tank does not heat up.	DHW thermostat ¹⁾ on the boiler set too low	Set DHW thermostat ¹⁾ higher. If necessary, reduce the solar optimization influence ²⁾ .
	Supply temperature control ¹⁾ on the boiler set too low.	Turn the supply temperature control ¹⁾ clockwise as far as it will go.
	DHW program set incorrectly.	Set a DHW program.
	The set System configuration for the DHW heating does not fit the heating system.	Call installer or customer service.

Tab. 9 Troubleshooting, Part 2

- 1) There is additional information in the operating instructions for the boiler
- 2) For additional information, see the detailed installation and operating instructions for the controls

8.2 Eliminating displayed faults

A fault in your heating system is shown on the display of the controls. The cause can be a fault of the boiler or a fault of the controls.

Fault of the boiler

If the boiler is the cause of the fault, the fault code displayed contains at least one letter, e.g. **fault EA** or **fault b1**.

See the operating instructions for the boiler for additional information about these faults.

Fault of the controls

If the controls or another control component is the cause of the fault, the fault code shown consists of two numbers, e.g. **fault 11**.

- ▶ Call the installer or customer service and inform them of the fault code and control data.



The data for the controls is on the flap of the controls.

Data of the controls:

Type:.....

Order number:.....

Date of manufacture (FD...):

9 Energy saving tips

Economy heating

- Set the desired room temperatures for the three “temperature levels” to your personal temperature preference and set the heating program to suit your personal lifestyle.
 - **Comfort** ☀ = Comfortable living environment
 - **Economy** ☾ = Active living environment
 - **Frost** ❄ = Away from home or asleep.
- Set the thermostats in all rooms so that the desired room temperature can also be reached. Only increase the temperature levels if the temperature has not been reached after some time.
- If the controls are in your apartment, they can also be used to record the room temperature to optimize the control precision with an appropriate setting. Avoid the influence of external heat on the room, e.g. through solar radiation, fireplace etc. Otherwise there may be undesired fluctuations in the room temperature.
- If you lower the room temperature by 2 °F (1 °C), you save up to 5 % energy. However, it does not make sense to let the room temperature in rooms heated daily sink below +60 °F (+15 °C). This way, the walls cool off too much. In the heat-up phase, the room climate is disturbed by the cold walls, which continue to emit cold. If you further increase the room temperature, more energy is used than with the same amount of heat supply.
- With good heat insulation of your building, it is possible that after a heating phase, the desired room temperature for **Economy** ☾ will not be reached. Nevertheless energy is being saved as the heating system stays off. You save still more energy if you set the switch point for **Economy** ☾ earlier.

Venting

Open the windows all the way for a short time instead of just tipping them open. With open windows, heat is constantly drawn out of the room without really improving the room air. When airing out the room, turn off the thermostats on the boilers or turn the operating mode selector on the controls to the **Frost** ❄ position.

DHW

Set the DHW program to your individual hot water needs.

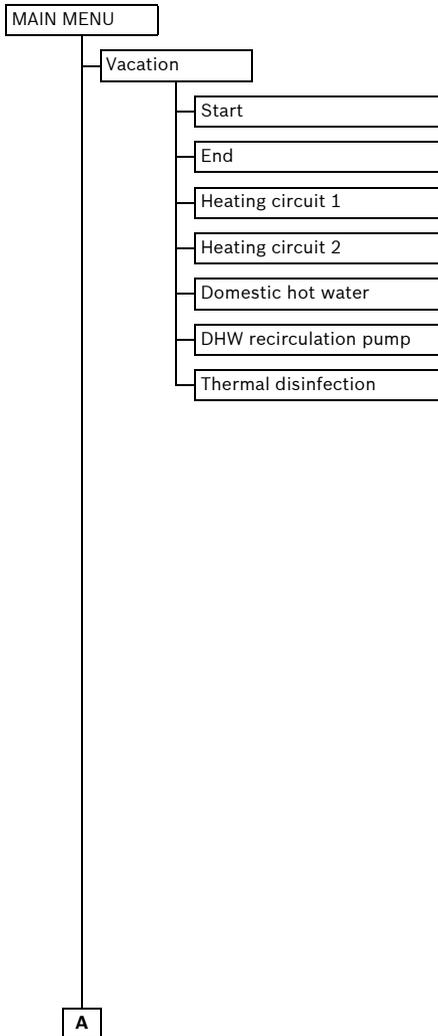
This way, you will save a lot of energy without compromising the DHW convenience.

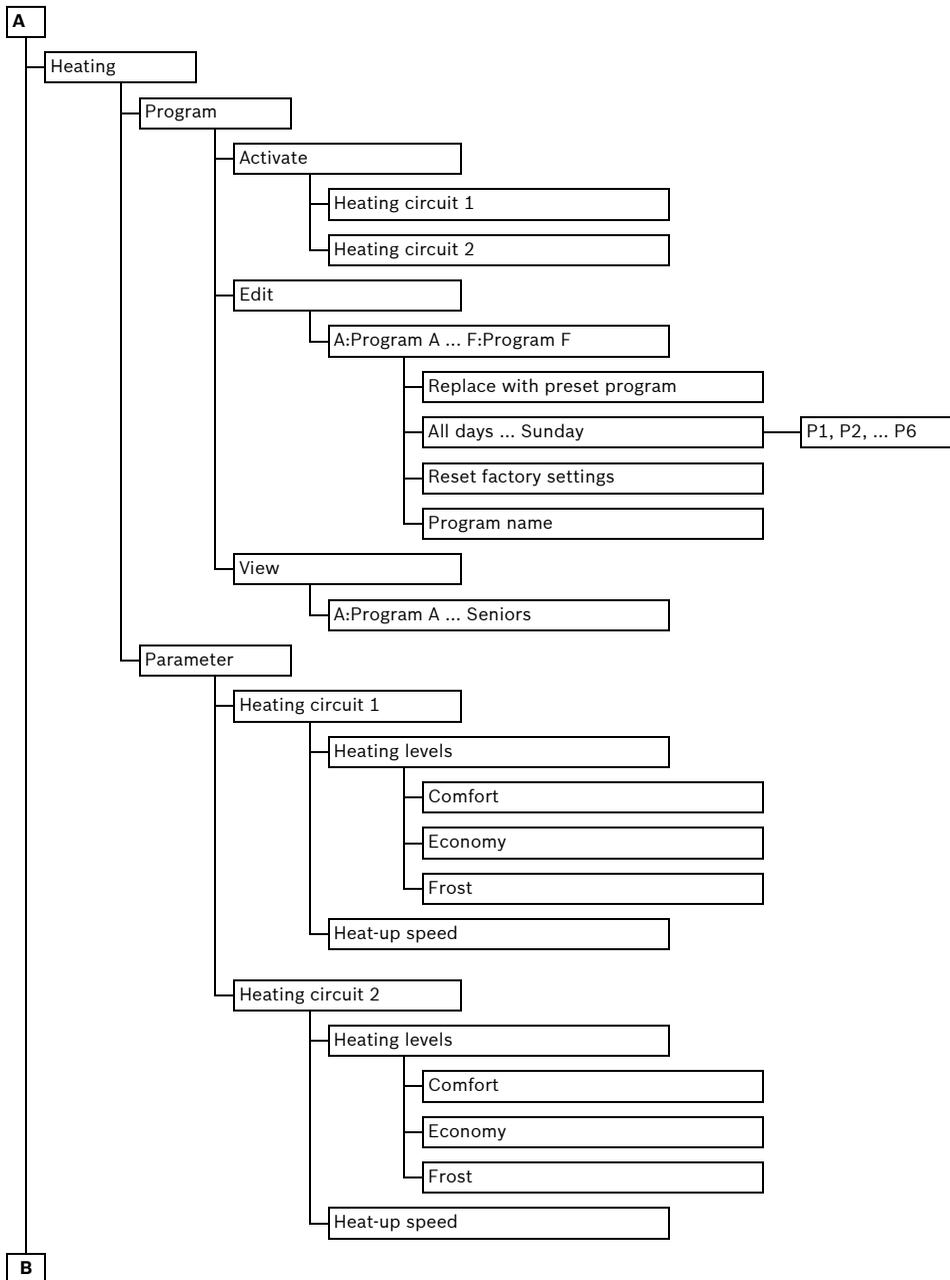
Solar optimization

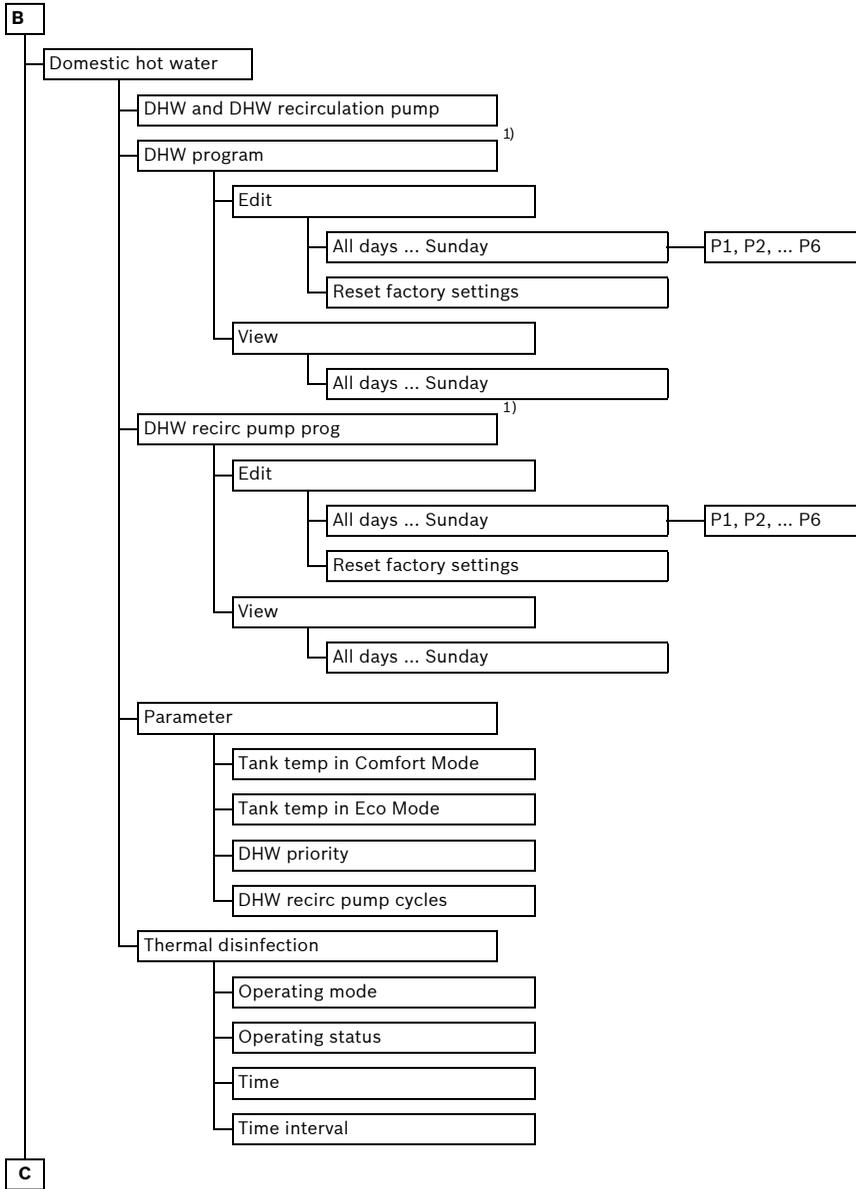
The controls have a “solar optimization” function. For more information, please see the detailed installation and operating instructions for the controls.

10 Menu structure

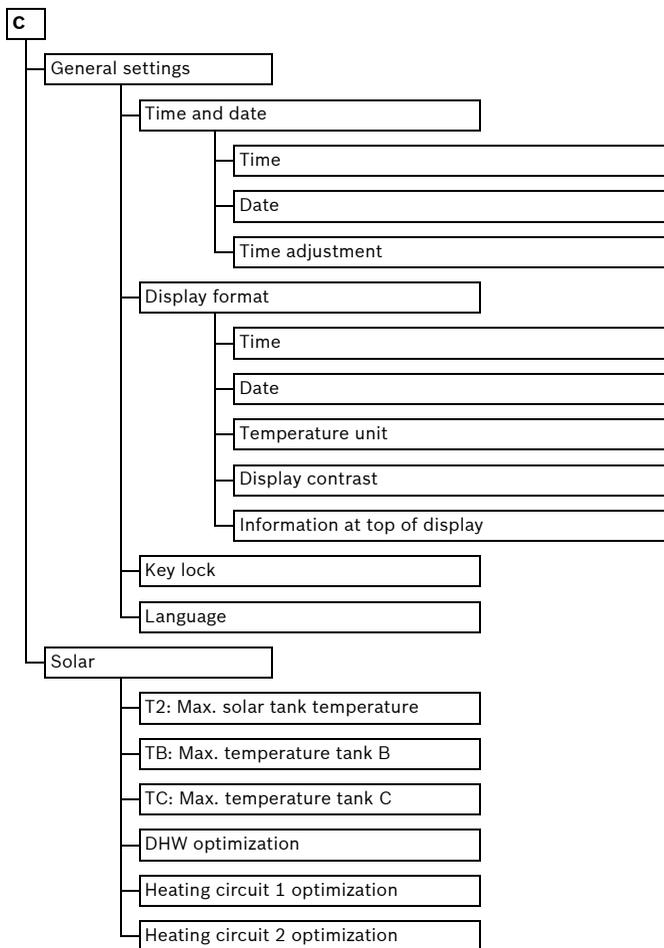
- ▶ Press menu button briefly to open or close the main menu.
- ▶ Turn dial to select the desired menu option.
- ▶ Press dial to open the selected menu option.







1) This menu option is only displayed if the DHW program is activated (→ section 5.5.2).



Technical terms

Automatic operation mode

The heating system always follows the heating program and automatically switches between the operating modes  **Comfort** /  **Economy** /  **Frost**.

Combi boiler

A boiler that can heat up drinking water and heating water in one device simultaneously.

Constant operation

In constant operation, the automatic operation or the heating program is interrupted and heating up to the corresponding “desired” room temperature takes place.

DHW program

The DHW program specifies at which switch times there should be DHW heating and a recirculation pump should run. If the DHW program is connected to the heating program, the heating program also determines when DHW heating is active and the recirculation pump operates.

DHW storage tank

A DHW storage tank stores large quantities of heated drinking water (e.g. 80 gallons (300 liters)) and thus provides sufficient hot water at the taps. This is ideal for long showers, for example.

Factory settings

Values saved permanently in the controls (e.g. complete heating programs) that are available even if all customized settings were reset.

Frost protection

Frost protection is the lowest temperature that the controls permit. Frost protection prevents freezing of the building.

Groups of days

For the convenient setting of the heating program or the DHW program, there are groups of days available (e.g. Monday - Friday, Saturday and Sunday, etc.) In association with the group of days selected, a setting is made for several days at the same time.

Heating program

A heating program automatically switches the operating mode at fixed times. If the DHW program is connected to the heating program, the heating program also determines the switch points for DHW heating and the operation of the recirculation pump.

Heating zone (or heating circuit)

The heating water flows into a heating zone and refers to a part of the heating system. In a heating system, there can be several heating zones. These controls can regulate two separate heating zones. Depending on the installed heating system, for example, one heating zone can warm up the radiators and the other heating zone the radiant floor heating.

Operating mode

The operating modes are **Comfort** / **Economy** / **Frost**. They are depicted with the symbols  /  / .

Each of these operating modes is assigned a “desired” room temperature (temperature level) that can be changed.

Operating mode selector

Use the operating mode selector to switch between the heating program and constant operation.

Outdoor reset controls

An outdoor reset control automatically sets the supply temperature depending on the heat loss of the building.

Recirculation pump

A recirculation pump circulates the hot water between the hot water heater and tap. Thus hot water is available more quickly.

Supply temperature

Temperature at which the boiler water flows in the heating circuit of the central heating from the boiler to the radiators in the rooms. To increase efficiency, modern heating systems use significantly lower supply/return temperatures, e.g. 140/104 °F (60/40 °C), while earlier 194/158 °F (90/70 °C) were common.

Switch time

A particular time when the system switches from one operating mode to another. The switch point is a component of the heating program and the DHW program.

Temperature level

A “desired” room temperature that is assigned to an operating mode. The “desired” room temperature can be changed. Heed the explanations about the operating mode.

Thermal disinfection

This function heats up the domestic hot water to a temperature above 140 °F (60 °C) sufficient to kill pathogens (e. g. legionella). Heed the safety instructions for the danger of scalding.

Vacation mode

The vacation mode enables the interruption of the heating program for several days. After the end of the vacation program, the controls resumes the regular heating program.

United States and Canada

Bosch Thermotechnology Corp.
50 Wentworth Avenue
Londonderry, NH 03053
Tel. 603-552-1100
Fax 603-584-1681
www.bosch.us
U.S.A.

Products manufactured by
Bosch Thermotechnik GmbH
Junkersstrasse 20-24
D-73249 Wernau
www.bosch-thermotechnology.com

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